

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A magnetic substance-encapsulated particle,
which comprises an organic polymer material and a magnetic substance having an average particle size of 1 to 30 nm, the magnetic substance being contained within a particle in a state of being dispersed.

2. (original): The magnetic substance-encapsulated particle according to claim 1,
wherein the absolute deviation of a component ratio between a carbon element composing the organic polymer material and a metal element composing the magnetic substance is 0.3 or less.

3. (currently amended): The magnetic substance-encapsulated particle according to claim ~~1 or 2~~,
wherein the magnetic substance is formed by oxidization of a metal ion within a particle in a polymerization process of forming the magnetic substance-encapsulated particle.

4. (original): The magnetic substance-encapsulated particle according to claim 3,
wherein the metal ion is an iron ion.

5. (currently amended): The magnetic substance-encapsulated particle according to claim 1, ~~2, 3 or 4,~~

wherein a main constituent of the organic polymer material is a polymer comprising an acrylic monomer.

6. (original): The magnetic substance-encapsulated particle according to claim 5, wherein the acrylic monomer is a monomer having a glycidyl group.

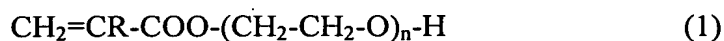
7. (currently amended): The magnetic substance-encapsulated particle according to claim 1, ~~2, 3 or 4,~~

wherein a main constituent of the organic polymer material is a polymer comprising a monomer having a glycidyl group and a styrenic monomer.

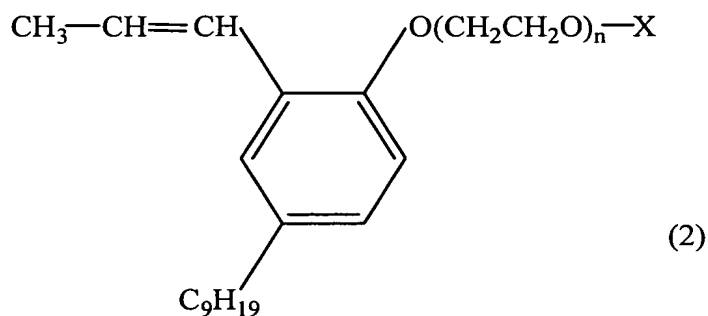
8. (original): The magnetic substance-encapsulated particle according to claim 7, wherein the proportion of a monomer unit derived from the styrenic monomer in the organic polymer material is 5 to 90% by weight.

9. (currently amended): The magnetic substance-encapsulated particle according to claim 5, ~~6, 7 or 8,~~

which further has polyethylene glycol (meth)acrylate represented by the following general formula (1), or a compound represented by the following general formula (2), as a monomer component of a polymer composing the organic polymer material:



in the formula, R represents H or CH₃, and n represents an integer of 1 to 20,



in the formula, X represents H or SO₃⁻NH₄⁺, and n represents an integer of 3 to 30.

10. (currently amended): The magnetic substance-encapsulated particle according to claim 1, ~~2, 3, 4, 5, 6, 7, 8 or 9,~~

wherein the organic polymer material is crosslinked.

11. (currently amended): The magnetic substance-encapsulated particle according to claim 1, ~~2, 3, 4, 5, 6, 7, 8, 9 or 10,~~

which has at least a functional group selected from the group consisting of a carboxyl group, a hydroxyl group, an epoxy group, an amino group, a triethylammonium group, a dimethylamino group and a sulfonic acid group at the surface of the particle.

12. (currently amended): The magnetic substance-encapsulated particle according to claim 1, ~~2, 3, 4, 5, 6, 7, 8, 9, 10 or 11,~~

wherein an average particle size is 0.05 to 1 μm .

13. (currently amended): The magnetic substance-encapsulated particle according to claim 1, ~~2, 3, 4, 5, 6, 7, 8, 9, 10, 11 or 12,~~

wherein a content of the magnetic substance is 0.1 to 50% by weight.

14. (currently amended): The magnetic substance-encapsulated particle according to claim 1, ~~2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 or 13,~~

wherein an average particle size of the magnetic substance is 2 to 10 nm.

15. (currently amended): The magnetic substance-encapsulated particle according to claim 1, ~~2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 or 14,~~

wherein a linker having a functional group capable of forming a covalent bond with an antigen or an antibody binds to a particle surface.

16. (original): The magnetic substance-encapsulated particle according to claim 15, wherein the functional group capable of forming a covalent bond with an antigen or an antibody is an epoxy group.

17. (currently amended): The magnetic substance-encapsulated particle according to claim 15 ~~or 16~~, wherein the linker is polyethylene glycol diglycidyl ether.

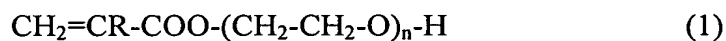
18. (original): A method of producing a magnetic substance-encapsulated particle comprising the steps of:
polymerizing a monomer not having a hydrophilic group and/or a monomer having a hydrophilic group in a water solvent to form a particle; and
oxidizing a metal ion while taking in the metal ion into the particle to form a magnetic substance,
the step of forming a particle and the step of forming a magnetic substance being simultaneously performed.

19. (original): The method of producing the magnetic substance-encapsulated particle according to claim 18,

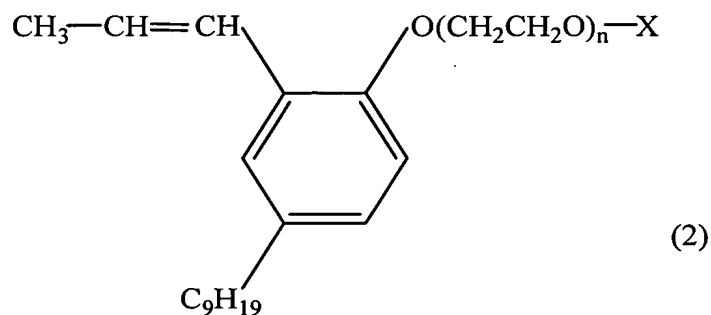
wherein the monomer not having a hydrophilic group is an acrylic monomer having a glycidyl group, or an acrylic monomer having a glycidyl group and a styrenic monomer.

20. (currently amended): The method of producing the magnetic substance-encapsulated particle according to claim 18 ~~or 19~~,

wherein a monomer to form a particle comprises a monomer not having a hydrophilic group and a monomer having a hydrophilic group, and the monomer having a hydrophilic group is polyethylene glycol (meth)acrylate represented by the following general formula (1) or a compound represented by the following general formula (2):



in the formula, R represents H or CH₃, and n represents an integer of 1 to 20,



in the formula, X represents H or SO_3NH_4^+ , and n represents an integer of 3 to 30.

21. (currently amended): The method of producing the magnetic substance-encapsulated particle according to claim 18, ~~19 or 20,~~

wherein in the step of forming a particle, a reactive emulsifier is added as a copolymerization monomer.

22. (currently amended): The method of producing the magnetic substance-encapsulated particle according to claim 18, ~~19, 20 or 21,~~

wherein in the step of forming a particle, a polymerization initiator is added afterward.

23. (currently amended): A particle for immunoassay,

which is obtainable by adsorbing or binding an antigen or an antibody to the magnetic substance-encapsulated particle according to claim 1, ~~2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15,~~
~~16 or 17.~~

24. (currently amended): A method of immunoassay,

wherein the magnetic substance-encapsulated particle according to claim 1, ~~2, 3, 4, 5, 6,~~
~~7, 8, 9, 10, 11, 12, 13, 14, 15, 16 or 17,~~ or the particle for immunoassay according to claim 23 is used.

25. (currently amended): A method of immunoassay,
wherein the magnetic substance-encapsulated particle according to claim 1, ~~2, 3, 4, 5, 6,~~
~~7, 8, 9, 10, 11, 12, 13, 14, 15, 16 or 17,~~ is used as a marker.

26. (currently amended): The method of immunoassay according to claim ~~24 or 25,~~
wherein an immuno chromatogram method is used.